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EXAMINER

GARCIA, ERNESTO

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,585

Applicant(s)

MARCHE, HERVE

Examiner

Ernesto Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

The drawings were received on August 18, 2006. These drawings are acceptable.

Claim Rejections - 35 USC § 112

Claims 1-5 and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the metes and bounds of the claim is unclear. In particular, the recitation "one rotatable degree of freedom that is fixed along the hinge pin axis" is contradictory statement. How can the first and second parts have a degree of freedom that is both rotatable and yet fixed along the hinge pin axis. Note that being rotatable contradicts being fixed. If it is fixed, the degree of freedom is no longer rotatable or for that matter present. Either one occurs but not both.

Regarding claim 19, it is unclear whether the coupling member is being required as part of the claimed assembly. In particular, line 3 merely sets forth the coupling member as an intended use for the first aperture. However, lines 3-4 then go on to define the coupling member and its orientation. If the coupling member is not a positive element of the assembly, how does this orientation serve to further limit the assembly? Accordingly, it is not clear if claim 19 is drawn to the assembly in combination with the coupling member or to the assembly subcombination without the coupling member.

Regarding claims 2-5 and 17, the claims depend from claim 1 and therefore are indefinite.

Claim Rejections - 35 USC § 102

Claims 1, 2, and 6-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Swerer, 1,900,081.

Regarding claim 1, Swerer discloses, in Figure 3, an articulate junction device between a suspended structure 3 and a load bearing structure 6. The device comprises a hinge pin 9, at least one first part 7, and a second part 8. The hinge pin 9 has a hinge pin axis A9 (see marked-up attachment provided in the last Office action). The first part 7 is rotatable about a first axis A7. The second part 8 is rotatable about a second axis A8. The hinge pin 9 passes through the first part 7 and the second part 8. The first axis

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A7 and the second axis **A8** are parallel to each other and offset from each other and the hinge pin axis **A9**. The first part and the second part have one rotatable degree of freedom fixed along the hinge pin axis **A9**.

Regarding claim 2, the rotation prevention means (the hexagonal sides of the hinge pin and the holes) are provided between the hinge pin and each of the first and second parts.

Regarding claim 6, Swerer discloses, in Figure 2, an assembly comprising a coupling member **9**, a first structure **3**, and a second structure **6**. The first structure **3** has a first circular member **7** rotatable in a first axis **A7**. The first circular member **7** has a first aperture **A5** configured to receive the coupling member **9**. The coupling member **9** is oriented along a third axis **A9** adjacent to the first axis **A7**. The second structure **6** coupled to the a first structure **3**. The second structure **6** is rotatable about a second axis **A8** adjacent to the first axis **A7** and the third axis **A9**. The second structure **6** has a second circular member **8** configured to receive the coupling member **9** in a second aperture **A10**. The first circular member **7** and the second circular member **8** are unable to rotate with respect to one another about the third axis **A9**.

Regarding claim 7, the first structure **3** is capable of rotating about at least one of the first axis **A7** and the second axis **A8**.

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Regarding claim 8, the second structure **6** is capable of rotating about at least one of the first axis **A7** and the second axis **A8**.

Regarding claim 9, the first circular member **7** and the second circular member **8** are not independently moveable.

Regarding claim 10, the coupling member **9** is a circular hinge pin.

Regarding claim 11, the first aperture **A5** and the second aperture **A10** are circular.

Regarding claim 12, the circular hinge pin further comprises at least one protrusion extending from an outer surface to prevent rotation with the first circular member **7** and the second circular member **8**. Note that the circle is inside the hexagonal opening tangent to the walls of the opening.

Regarding claim 13, the aperture of at least one of the first circular member **7** and the second circular member **8** includes a protrusion extending from an inner surface.

Claims 6 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Coone, 4,225,264.

Regarding claim 6, Coone discloses, in Figure 5, an assembly comprising a coupling member **25**, a first structure **11**, and a second structure **12**. The first structure **11** has a first circular member **13** rotatable in a first axis **A4**. The first circular member **13** has a first aperture **21A** configured to receive the coupling member **25**. The coupling member **25** is oriented along a third axis **A6** adjacent to the first axis **A4**. The second structure **12** coupled to the a first structure **11**. The second structure **12** is rotatable about a second axis **A8** adjacent to the first axis **A4** and the third axis **A6**. The second structure **12** has a second circular member **14** configured to receive the coupling member **25** in a second aperture **21B**. The first circular member **13** and the second circular member **14** are unable to rotate with respect to one another about the third axis **A6** (note that once the circular members are bolted down, the circular members will not move).

Regarding claim 15, the first circular member **13** and the second circular member **14** include a spherical outer surface to define a ball joint connection with corresponding interface surfaces of the first structure **11** and the second structure **12**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swerer, 1,900,081, as applied to claims 1, 2, and 6-13, and further in view of Chung, 6,484,363.

Regarding claim 3, Swerer, as discussed, fails to disclose the suspended structure further comprising two plates parallel to each other between which the load bearing structure is placed. Chung teaches in Figure 1, a suspended structure **12** further comprising two plates **20** parallel to each other defining a space therebetween as an alternative design to allow the load bearing structure to be pivotally hinged on the suspended structure. Therefore, as taught by Chung, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further comprise the suspended structure with two plates parallel to each other defining a space therebetween to allow the load bearing structure to pivot relative to the suspended structure.

Regarding claim 14, Swerer, as discussed, fails to disclose the first structure further comprises two plates parallel to each other defining a space therebetween. Chung teaches, in Figure 1, a first structure **12** further comprising two plates **20** parallel to each other defining a space therebetween as an alternative design to allow the

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second structure to be pivotally hinged on the first structure. Therefore, as taught by Chung, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further comprise the first structure with two plates parallel to each other defining a space therebetween to allow the second structure to pivot relative to the first structure.

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swerer, 1,900,081.

Regarding claims 17 and 18, Swerer discloses the second axis **A8** is offset from the first axis. However, Swerer fails to disclose the offset being vertically upwards. Applicant is reminded that rearranging parts of an invention involves only routine skill in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was to orient the assembly to be mounted to a chest and its cover such that the second axis will be offset vertically upwards. *In re Japikse*, 86 USPQ 70.

Regarding claim 19, Swerer, discloses, in Figure 2, an assembly comprising a load bearing structure **6**, a suspended structure **3**, and a coupling member **9**. The load bearing structure **6** has a first circular member **8**. The first circular member **8** is able to rotate about a first axis **A8** (see marked-up attachment provided in the last Office action). The first circular member **8** has a first aperture (where the coupling member **9** is inserted). The coupling member **9** is oriented along a third axis **A9** adjacent to the

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first axis **A8**. The suspended structure has a second circular member **7** having a second aperture (where the coupling member **9** is also inserted). The first circular member and the second circular member are unable to rotate with respect to one another about a third axis **A9**. Applicant should note that the suspended structure is able to move with respect to the load bearing structure about the second axis **A7** adjacent to the first axis and the third axis when coupled to the load bearing structure. The second axis **A7** is offset from the first axis **A8**.

However, Swerer fails to disclose the offset being vertically upwards. Applicant is reminded that rearranging parts of an invention involves only routine skill in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was to orient the assembly to be mounted to a chest and its cover such that the second axis will be offset vertically upwards. *In re Japikse*, 86 USPQ 70.

Allowable Subject Matter

Claims 4 and 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

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regarding claim 4, the prior art of record does not disclose or suggest an articulated junction device comprising two first parts in two plates parallel to each other (claim 3, lines 2-3) of a suspended structure, and cooperating with the two plates of the suspended structure through spherical surfaces together defining a ball joint connection therebetween. The closest prior art, Coone, 4,225,264, teaches the ball joint connection in Figure 4; however, there is no motivation, absent applicant's own disclosure, to teach the suspended structure 11 or 12 comprising two plates parallel to each other since the suspended structure is a flange. Doane, 5,104,061, teaches two first parts 22,34; however, the axis of one of the parts 22 is coaxial or at an angle with respect to the axis of the hinge pin axis thus the axis will not be offset from the hinge pin axis (claim 1, lines 8-9); and,

regarding claim 5, this claim depends from claim 4.

Response to Arguments

Applicant's arguments filed August 18, 2006 have been fully considered but they are not persuasive.

With respect to Swerer, claim 1, note the 112(2nd) rejection. Applicant argues that Swerer teaches the opposite and that the eccentric members 7 and 8 rotate about the hinge pin 9 within their respective sleeve 36. In response, applicant should note that the eccentric members 7 and 8 do not rotate with respect to the hinge pin due to the

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hinge pin not being cylindrical but hexagonal. Therefore, the eccentric members are not rotatable and the eccentric members 7,8 are fixed along the hinge pin axis, contrary to what the applicant alleges. Applicant further argues that the hexagonal shape pin is rotated about its axis. In response, how does one hexagonal shape pin rotate within a hexagonal opening? According to physics and common sense, this is impossible.

With respect to Swerer, claim 6, applicant argues that rotation of the hinge pin 9 will cause the eccentric members 7 and 8 to rotate within their sleeves. In response, this is correct when the pin is inserted within the eccentric members 7,8. However, how does this not read on the language argued. Applicant should note that rotation is relative. The hinge pin 9 causes the eccentric members to rotate due to the hexagonal shape of the hinge pin 9. If the pin were cylindrical, rotating the pin will not rotate the eccentric members. Accordingly, the hexagonal shape does not allow the members 7, 8 to rotate with respect to one another since the members 7, 8 and the pin 9 are fixed together.

With respect to Coone, claim 6, applicant argues that the assembly does not allow coupled movement between two structures because the basic premise behind Coone is to allow quick alignment and coupling of tube in harsh environments. In response, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is

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capable of performing the intended use, then it meets the claim. Further, it is to be noted that the intended purpose of the invention is not determined for patentability but rather the structural differences between the claimed invention and that of the prior art, in particular, Coone. Applicant further argues that the plugs, the flanges, and the tubes cannot move after they are coupled to one another. In response, this analysis is not correct when viewed in light of Figure 2 of Coone. Note that the members in Figure 2 are still coupled and still allowed to move as compared to Figure 3 after being bolted down. With respect to claim 19, Swerer anticipates the claim.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. The recitation "fixed along the hinge pin axis" in claim 1, lines 9-10, necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-282-7083. The examiner can normally be reached from 9:30-5:30. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EQ.

E.G.

October 30, 2006



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